

## ABSTRACT OF THE DISCLOSURE

Method of identification and quantitative analysis of carboxylic acid (s) in a sample by mass spectrometry using stable isotope labeled internal standard is provided. Said internal standard is prepared by reaction of an authentic sample of said carboxylic acid with a stable isotope labeled reagent, and is added to a sample containing said carboxylic acid. Said carboxylic acid in said sample is then quantitatively converted to a chemical compound of identical structure, except the stable isotope atoms, as that of said internal standard using a non-labeled reagent. Said sample is then extracted and the extract is analyzed by mass spectrometry. Identification and quantification of said carboxylic acid are made from a plot of ion ratio of said converted carboxylic acid to said internal standard versus carboxylic acid concentration.